

REMARKS

Claims 1, 10, 15, 24, 29, 30, 31, and 32 have been amended. No new matter is introduced by the amendments of these claims. The amendments of claims 1, 10, 15, 24, 29, 30, 31, and 32 are supported by Fig. 3 and page 13, lines 17-24, among other places. New dependent claims 33-40 have been added. Accordingly, claims 1-40 remain pending.

The Examiner rejected claims 1, 6, 10, 15, 20, 24, and 29-32 under 35 U.S.C. §102(e) as being anticipated by Bernstein et al. (U.S. patent 6,157,644). The Examiner has also rejected claims 2-4, 7-9, 11, 12, 16-18, 21, 23, and 25 under 35 U.S.C. §103(a) as being unpatentable over Bernstein et al. in view of Cohen et al. (US 6,389,462). Additionally, claims 5, 13, 14, 19, 27, and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bernstein et al. in view of Kempke et al. (US 5,847,874). The Examiner's rejections are respectfully traversed as follows.

Claim 1 is directed towards a method "of distributing packets among a plurality of processing devices." Claim 1 also requires "receiving a packet" and "inputting at least a portion of the packet into a content addressable memory." Claim 1 also requires "obtaining a result from the content addressable memory (CAM) to indicate whether to redirect the received packet to a selected processing device" and "redirecting the received packet to the selected processing device when the CAM indicates to redirect the received packet." Claim 1 further requires "sending the received packet to a destination indicated by the received packet when the CAM does not indicate to redirect the received packet." In other words, a content addressable memory (CAM) is used to obtain an indication about whether to redirect a packet, for example, to a cache. If the CAM indicates a redirect, the packet is redirected to a selected processing device, such as a cache. Otherwise, the packet is forwarded to its intended destination. The present invention allows extremely efficient evaluation of redirection decisions by, for example, by using a CAM to quickly assess whether to redirect a packet from its intended destination. Independent claims 15, 29, and 31 have a similar limitation regarding obtaining a result from the CAM which indicates whether to redirect the received packet.

Claim 24 is directed towards "a computer system operable to facilitate traffic distribution among a plurality of devices." The system has "a first memory; a content addressable memory; and a processor coupled to the first memory and the content addressable memory." Claim 24 also requires that "at least one of the first memory and the processor are adapted to provide generating a plurality of entries within the content addressable memory, each entry including a set of bit values that correspond to at least a portion of a packet and each entry including one or more destination-fields indicating where to send a packet that matches the entry's set of bit values

and indicating whether to redirect the packet from a destination indicated by the packet.” Claims 10, 30, and 32 also has such a destination field limitation.

In contrast, the primary reference Bernstein et al. teaches using a CAM to program cache addresses to merely obtain forwarding addresses for packets. In other words, the CAM is used to store forwarding addresses, as well as forwarding history. Specifically, Bernstein et al. teaches using a CAM to store a “packet forwarding table” and a “router history table” See Column 5, Lines 45-50. Bernstein et al. also teaches comparing an IP address extracted from a received packet to “addresses in the router history table (step 916).” See Column 6, Lines 50-52. A particular IP address will be stored in the router history table from previous next hop calculations on packets with the same destination address. See Column 6, Lines 45-49. When a match in the routing history table is found, it may be determined that the packet was previously sent to the router by the router accelerator switch and that the next hop address may be obtained from the packet itself. Supra Lines 52-58. This next hop information is stored in the packet forwarding table of the CAM for later forwarding of subsequent packets. That is, a subsequent packet’s destination address is matched with an address in the packet forwarding table. A hit in this table is associated with a next hop, which is then used to route the packet to the next hop. See Column 7, Lines 4-22.

However, Bernstein et al. fails to teach or suggest a computer device having a CAM indicative of whether to redirect or using a CAM to indicate whether to redirect a received packet to a selected processing device, in the manner claimed in the independent claims. The secondary references also fail to teach or suggest such limitation. Accordingly, it is respectfully submitted that claims 1, 15, 24, 29, 30, 31, and 32 are patentable over the cited art.

The Examiner’s rejections of the dependent claims are also respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 2-9, 11-14, 16-23, 25-28, and 33-40 each depend directly from independent claims 1, 10, 15, 24, 29, 30, 31, or 32 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 1, 10, 15, 24, 29, 30, 31, or 32. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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